

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re patent application of:

Tilg, *et al.*

(Div. Appl. of No.: 09/362,899)

Filed: December 21, 2001 (herewith)

For: **Process for the Preparation of L-Amino  
Acids By Fermentation and Nucleotide  
Sequences Coding for the accDA Gene**

Art Unit: to be assigned

Examiner: to be assigned

Atty. Dkt. 21123/284139

**Preliminary Amendment**

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

In advance of prosecution, please amend the above-captioned application as follows:

***In the Specification:***

Please amend the enclosed application by providing a new cross reference to related applications before the first line of the specification, which reads as follows:

**-- Cross Reference to Related Applications**

The present application is a division of U.S. application 09/362,899, filed July 29, 1999, which claims priority to German application 199 24 365.4 filed on May 27, 1999.--

***In the Claims:***

Please cancel all claims 1-16 without prejudice.

Please add new claims 17-31 as follows:

17. A process for the production of an L-amino acid comprising:  
culturing coryneform bacteria in which at least the endogenous accDA gene is amplified, under conditions suitable for the production of the accDA gene product;  
and wherein said bacteria produce said L-amino acid.

18. The process of claim 17, wherein said accDA gene has a sequence consisting essentially of that of SEQ ID NO. 1.
19. The process of claim 17, wherein said accDA gene comprises polynucleotide sequences which correspond to the sequence of SEQ ID NO:1 within the region of degeneracy of the genetic code.
20. The process of claim 17, wherein said accDA gene comprises polynucleotide sequences which correspond to the sequence of SEQ ID NO:1, with neutral sense mutations.
21. The process of claim 17, wherein said bacteria is a *Corynebacterium glutamicum*.
22. The process of claim 17, wherein said bacteria further comprises at least one gene other than accDA which is also amplified.
23. The process of claim 17, wherein, in said bacteria, metabolic pathways which reduce the formation of the desired L-amino acid are at least partially switched off.
24. The process of claim 17, wherein said bacteria is transformed with a plasmid vector for expressing the accDA gene of *Corynebacterium glutamicum*.
25. The process of claim 24, wherein said vector is pZ1accAD.
26. The process of claim 17, wherein said L-amino acid is L-aspartic acid, L- asparagine, L-homoserine, L-threonine, L-isoleucine or L-methionine.
27. The process of claim 17, wherein said L-amino acid is L-Lysine.
28. The process of claim 17, comprising:  
culturing coryneform bacteria in which the endogenous accBC gene is additionally amplified, under conditions suitable for the production of the accBC gene product.

29. The process of claim 17, wherein an endogenous dapA gene coding for dihydrodipicolinate synthase is simultaneously overexpressed.
30. The process of claim 17, wherein an endogenous DNA fragment conferring S-(2-aminoethyl) cysteine resistance is simultaneously amplified.
31. A process for the production of L-amino acids comprising:
  - a) culturing coryneform bacteria in which at least the endogenous accDA gene is amplified, under conditions suitable for the production of the accDA gene product;
  - b) accumulating the desired L-amino acid in the medium or in the cells of bacteria; and
  - c) isolating the L-amino acid(s); and wherein said bacteria produce said L-amino acid(s).

### Amendment

Claims 1-16 were cancelled and new claims 17-31 have been added herein. The new claims correspond to, and are supported by, the claims in non-elected restriction Group III, original claims 6-16, as set forth by the Examiner in the Office Action dated April 14, 2000, in the parent application 09/362,899.

### Conclusion

The amendments above do not add new matter to the application, and their entry is therefore respectfully requested. It is believed that the present application is now in condition for immediate allowance and early notice to such effect is earnestly solicited.

If, in the opinion of the Examiner, a phone call may help to expedite the prosecution of this application, the Examiner is invited to call Applicants' undersigned attorney at (703) 905-2173.

Respectfully submitted,

PILLSBURY WINTHROP LLP

By: Michael A. Sanzo  
Michael A. Sanzo  
Reg. No. 36,912  
Attorneys for Applicants

Date: December 19, 2001  
1600 Tysons Boulevard  
McLean, VA 22102  
(703) 905-2000  
MAS/amx  
enclosure